



CITY OF SAN MATEO

City Hall
330 W. 20th Avenue
San Mateo CA 94403
www.cityofsanmateo.org

Agenda Report

Agenda Number: 9

Section Name: {{section.name}}

File ID: {{item.tracking_number}}

TO: City Council

FROM: Drew Corbett, City Manager

PREPARED BY: City Manager's Office

MEETING DATE: October 18, 2021

SUBJECT:

Solar Procurement for Public Facilities – Peninsula Clean Energy Partnership

RECOMMENDATION:

Authorize the City Manager to work with Peninsula Clean Energy to evaluate Power Purchase Agreements for the deployment of solar photovoltaic systems with optional battery storage at municipal facilities and approve the Police Department building as the first facility under this pilot program.

BACKGROUND:

Peninsula Clean Energy (PCE) has developed a pilot procurement process for the purchase and installation of solar photovoltaic (PV) systems and battery storage at municipal facilities. This program was developed to support PCE's organizational objectives to increase local renewable energy generation, help reduce customer energy costs, and help its customers achieve their sustainability goals.

The solar PV systems would be financed through a Power Purchase Agreement (PPA) with PCE. Under the PPA model, PCE will arrange for the installation, operations and maintenance of the solar PV system, and the City would pay an agreed upon price per kilowatt-hour (kWh) for power generated throughout the system's life. The PPA will be provided "at cost" by PCE to cover equipment and installation. In addition, PCE will also retain a small \$/kWh fee to cover its expenses. It is anticipated that the electricity rate set under the PPA will be lower than that charged by PG&E and that the discounted rate will increase over the life of the PPA as utility costs escalate over time.

PCE cannot provide a specific PPA price until it knows equipment costs, which will be determined via competitive solicitation. However, to make the RFP as competitive as possible, bidders need to know that there is a firm commitment by participating facility owners to move forward if they can provide pricing that results in net savings. PCE is therefore requesting the City take a formal action to demonstrate strong intent to participate in the program, if economically beneficial to the City. If PCE is unable to offer a PPA rate for the solar PV system that will provide the City with net savings or other community benefits as determined by the City, then there would be no obligation to move forward.

A battery energy storage system may be included as an option in the procurement for some facilities to provide added resiliency benefits such as the ability to maintain an operational facility during an outage or emergency event. If a battery is included, it may require city funding or result in a monthly cost above current energy bills. PCE, via a competitive solicitation, will be seeking best pricing for applicable battery systems and will explore financial options with the City Manager. There is no requirement to include the battery, but if no battery is installed, the solar PV systems will be designed as "battery ready" to allow for a streamlined future addition of a battery.

PCE has reduced risks to all parties by hiring an independent engineer to complete an analysis for buildings currently in the pilot portfolio and acting as the counterparty to the PPA, which will bring down costs, streamline procurement, and reduce

the amount of time required by City staff while obtaining the environmental, economic, and other community benefits.

The benefits of this pilot program include:

- PCE will evaluate facilities with its engineering services partner and determined a feasible design for a solar PV system.
- PCE will, if necessary, undertake an independent engineering assessment of facility roof to confirm structural ability to support solar PV equipment once the City has committed to evaluate the pilot program.
- PCE will execute all aspects of the procurement process.
- PCE will administer the construction and maintenance of the solar PV system.
- The City will obtain financial and environmental benefits of a solar PV system with no upfront costs and without incurring the staff time, cost, and complexity of running its own solicitation.
- The City will create local, renewable energy to advance its sustainability objectives at its facilities.
- The City will receive enhanced energy resilience for facilities if a battery is deployed.
- The City will hedge against rising utility rates, which over the course of a 20+ year system life will be significant.

The California Public Utilities Commission is currently engaged in rulemaking for changes to the Net Energy Metering (NEM) tariffs governing solar PV resources. It is expected that the next iteration of NEM (NEM 3) will be less advantageous for solar and may negatively affect project economics. In the past, projects that had reached a defined stage were grandfathered in under the existing tariff at the time, and it is expected this might apply to the latest NEM revision as well. As such, it is important to get projects deployed as soon as possible. If NEM 3 is enacted prior to the deployment of solar PV systems from this procurement and would prevent PCE from offering a PPA at net benefits to the City, PCE would have the right to terminate this pilot program at no cost or obligation to the City.

Initial Pilot at Police Department Building

PCE has collaborated with its Joint Power Authority (JPA) members, including the City of San Mateo, to identify candidate facilities and develop solar PV system designs for these sites. The Police Department Building was initially selected by the City and PCE due to their focus on improving resiliency of key public facilities. At its expense, PCE engaged an established independent engineering firm via a competitive solicitation and working with City staff, designed a solar PV system for the Police Department building maxing out the potential of how many panels can be accommodated on the site. The proposed design for the building includes an 81.2 kW rooftop solar installation and an 89 kW carport solar installation. These installations will cover roughly 35% of the electricity use for the facility. The project analysis determined that battery storage would not be an optimal solution for this site given the pre-existing diesel generator that is essential for continuity of operations in case of a power outage.

Given the design work that has already been completed, the Police Department building is the only City facility that is eligible to move forward for the initial round of the pilot program. However, the City may identify additional facilities for evaluation in subsequent procurement rounds.

BUDGET IMPACT:

There is no expected upfront cost to the City for the solar installations and battery storage. It is anticipated that the electricity rate set under the PPA will be lower than that charged by PG&E over the life of the agreement.

ENVIRONMENTAL DETERMINATION:

The proposed solar installation on the Police Department building is categorically exempt from CEQA as an “existing facility,” because it consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use. (CEQA Guidelines Section 15301.)

NOTICE PROVIDED

All meeting noticing requirements were met.

ATTACHMENTS

None

STAFF CONTACT

Kathy Kleinbaum, Assistant City Manager

kkleinbaum@cityofsanmateo.org

(650) 522-7153